A.4.11 AOC 6B

Description

This AOC consists of oily petroleum materials identified in several soil borings installed during the installation of an expanded groundwater monitoring system by DRAI in 1991. The original AOC 6 consisted of borings B-26, B-29, B-30, B-31, B-32, B-33 and B-34. These borings were broken into three separate areas that represent potentially separate sources as follows:

- AOC 6A includes borings B-26 and B-34, which are both located in the North Field between Tanks 326 and 328.
- AOC 6B includes borings B-29, B-30 and B-31 which are located in the East Yard in the vicinity of Tank 759, Pier 2 and the Arthur Kill bulkhead.
- AOC 6C includes borings B-32 and B-33, which are also located in the East Yard on the north side of Tank 773 near the Hess/Chevron property line.

As noted above, AOC 6B was identified based on the presence of oily materials in three soil borings (B-29, B-30 and B-31) located southeast of Tank 759 in the East Yard. As shown on Figure A.4.8, these borings are located within or adjacent to LNAPL Area EY4a.

As shown on Figure A.4.8 and summarized on Table A.4.8, numerous soil borings, hydropunch samples, and temporary piezometers and wells have been installed in and around AOC 6B as part of previous OWSS investigations and/or for characterization and delineation of LNAPL Area EY4a. Therefore, they are discussed in detail in either Section 7 of the Full RFI Report or as part of the AOC 16 discussion. Only one soil sample (SB0173C) and one groundwater sample (HP0118) were collected during the 1st-Phase RFI specifically to investigate AOC 6B.

Soil

One soil sample (SB0173C) was collected during the 1st-Phase Soils Investigation. GC fingerprint analysis of this sample indicated the presence of evaporated crude oil. Arsenic (220 mg/kg), copper (930 mg/kg) and lead (420 mg/kg), as well as TPH (27,000 mg/kg) were detected in the fill sample collected from 5 to 5.5 feet bgs in the pre-RFI boring (B-30) in 1991. As shown on Table A.4.8, TPH has been detected at concentrations greater than 10,000 mg/kg in a number of soil samples collected in the vicinity of AOC 6, and LNAPL is present within the EY4a footprint. Arsenic, lead and benzene have also been detected above the applicable soil delineation criteria in subsurface fill samples from this part of the Refinery.

Groundwater

Benzene, several SVOCs (including several PAHs) and metals have been detected in hydropunch samples collected from the AOC 6B area. However, SVOCs and metals collected using hydropunch methodology are not considered to be representative of ambient groundwater conditions. Further discussion of groundwater conditions in the vicinity of AOC 6B is included in Section 8 or the Full RFI Report.

Conclusions

The three borings that were initially used to identify AOC 6B are all located within or adjacent to the EY4a LNAPL area which has been fully delineated and characterized as discussed in detail in Section 7. Chevron recommends that AOC 6B be fully incorporated into the EY4a LNAPL area, which will be included for further evaluation in the CMS, and that this AOC be removed from the list of AOCs. Potentially impacted groundwater in this area will be evaluated further as part of the site-wide groundwater portion of the CMS.